

Having described the invention, we claim the following:

1. An inflator comprising:

structure defining a chamber, first and second passages extending through the structure to the chamber;

a burst disk closing the first passage;

a fill valve having a valve housing and a valve member, the valve housing received in the second passage and defining a fill passage;

a fluid stored under pressure in the chamber;

and

an igniter actuatable for opening the burst disk for enabling fluid to flow out of the chamber through the first passage,

the valve member enabling flow of the fluid through the fill passage of the valve housing into the chamber and preventing flow out of the chamber through the fill passage.

2. The inflator of claim 1 wherein the fluid is a combustible gas mixture that is ignitable for

providing inflation fluid, the igniter, upon actuation, igniting the combustible gas mixture.

3. The inflator of claim 1 wherein the chamber extends along a longitudinal axis, the valve housing extending radially into the structure and defining a radially extending fill passage.

4. The inflator of claim 1 further including a plug for sealing the fill passage of the valve housing, the plug being spaced away from the valve member outward of the chamber.

5. The inflator of claim 4 wherein a portion of the plug is located in the fill passage, the valve member sealing the fill passage to prevent the fluid from entering the fill passage.

6. The inflator of claim 1 wherein the structure includes a body portion having opposite first and second ends, an igniter endcap for supporting the igniter closing the first end of the body portion and a diffuser endcap for supporting the burst disk closing the second end of the body portion.

7. The inflator of claim 6 wherein the first and second passages are located in the diffuser endcap.

8. The inflator of claim 7 wherein the first passage extends axially through the diffuser endcap and the second passage extends radially through the diffuser endcap.

9. The inflator of claim 6 wherein a third passage extends through the igniter endcap, a rupturable isolation disk closing the third passage and preventing flow of the fluid out of the chamber through the third passage, combustion products generated from actuation of the igniter rupturing the isolation disk and entering the chamber through the third passage to heat the fluid in the chamber.

10. The inflator of claim 1 wherein the valve housing of the fill valve assembly includes an outer portion, the outer portion forming the widest part of the valve housing, the outer portion of the valve housing being affixed to the structure to secure the valve housing relative to the structure.

11. The inflator of claim 10 wherein the outer portion of the valve housing defines a mouth that leads to the fill passage, the mouth being adapted to receive a portion of a filling device for filling the chamber with the fluid.

12. The inflator of claim 1 wherein the valve housing defines a valve chamber, the valve member located in the chamber and movable in the valve chamber relative to the valve housing.

13. An inflator comprising:

structure defining a chamber, first and second passages extending through the structure to the chamber;

a fluid stored under pressure in the chamber;

a device closing the first passage and being actuatable for enabling fluid to flow out of the chamber through the first passage; and

a fill valve having a valve housing, a valve member, and a plug member, the valve housing received in the second passage and defining a fill passage, the valve member enabling flow of the fluid through the

fill passage of the valve housing into the chamber and preventing flow out of the chamber through the fill passage, the plug member sealing the fill passage of the valve housing after the fluid is introduced into the chamber through the fill passage, the plug member being spaced away from the valve member outward of the chamber.

14. The inflator of claim 13 wherein a portion of the plug member is located in the fill passage of the valve housing.

15. The inflator of claim 13 wherein the fluid is a combustible gas mixture that is ignitable for providing inflation fluid, the inflator also including an igniter that is actuatable for igniting the combustible gas mixture.

16. The inflator of claim 13 wherein the chamber extends along a longitudinal axis, the valve housing extending radially into the structure and defining a radially extending fill passage.

17. The inflator of claim 13 wherein the valve housing of the fill valve assembly includes an outer portion, the outer portion forming the widest part of the valve housing and including a surface that leads to the fill passage, the plug member including a first portion that is located in the fill passage and a second portion that abuts the surface of the outer portion.